WHAT IS CLAIMED IS

1.   An apparatus for improving information transfers in network applications comprising:

5   a data input, coupled to a data processing block, adapted to receiving data;

a programmable counter, having a first input coupled to said data processing block and a second input coupled to an interrupt generator and an output coupled to said interrupt generator, adapted to incrementing a

10   value stored in said programmable counter each time said programmable counter receives a signal from said data processing block and comparing said value stored in said programmable counter with a count threshold and signaling said interrupt generator when said value stored in said programmable counter is equal to said count threshold;

15   said interrupt generator, having an input coupled to said programmable counter and an output coupled to a signal output, adapted to generate an interrupt upon receipt of a signal from said programmable counter;

said data processing block, having an input coupled to said data

20   input and an output coupled to said programmable counter, adapted to examining said data from said data input for presence of an end-of-packet flag and signaling said programmable counter upon detecting said end-of-packet flag; and

said signal output, coupled to said interrupt generator, adapted to

25   outputting said interrupt.

2.   An apparatus according to Claim 1, wherein said data processing block is adapted to signaling said programmable counter upon detecting an end-of-PDU marker.

5   3.   An apparatus according to Claim 1, wherein:

said interrupt generator having a second input coupled to a timer and an output coupled to said timer; and

said timer having an input coupled to said interrupt generator and an output coupled to said interrupt generator, adapted to begin measuring
10   elapsed time upon arrival of a first data packet and signaling said interrupt generator when said elapsed time is equal to a time threshold.

4.   An apparatus according to Claim 3, wherein said timer is adapted to begin measuring elapsed time upon arrival of a first end-of-PDU marker.
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5.   An apparatus according to Claim 3, wherein said programmable counter and said timer are reset after said programmable counter signals said interrupt generator.

20   6.   An apparatus according to Claim 3, wherein said programmable counter and said timer are reset after said timer signals said interrupt generator.

7.   An apparatus according to Claim 1, wherein said programmable
25   counter is reset after said programmable counter signals said interrupt generator.

8.   A method for improving information transfers in network applications comprising the steps of:

receiving data from a network connection;

examining said data for presence of an end-of-packet flag;

incrementing a value in a programmable counter if said end-of-packet flag is present;

comparing said value in said programmable counter with a count threshold; and

asserting an interrupt if said value in said programmable counter is equal to said count threshold.

9.   A method according to Claim 8, wherein said step of incrementing said value in said programmable counter occurs if an end-of-PDU marker is detected.

10.   A method according to Claim 8, further comprising the steps of:

measuring elapsed time since receipt of a first data packet; and

asserting an interrupt if said measured elapsed time is equal to a time threshold.

11.   A method according to Claim 10, wherein said step of measuring elapsed time begins upon detection of first end-of-PDU marker.

12.   A method according to Claim 10, further comprising the step of resetting said elapsed time measurement and said programmable counter after asserting said interrupt.

13. A method according to Claim 8, further comprising the step of resetting said programmable counter after asserting said interrupt.

14. A network device with an apparatus for improved information transfer in network connections comprising:

a data input, adapted to receive data;

said data processing block, having an input coupled to said data input and an output coupled to a programmable counter and a shared memory, adapted to saving said data to said shared memory, examining said data from said data input for presence of an end-of-packet flag, and signaling said programmable counter upon detecting said end-of-packet flag;

a programmable counter, having a first input coupled to said data processing block and a second input coupled to an interrupt generator and an output coupled to said interrupt generator, adapted to incrementing a value stored in said programmable counter each time said programmable counter receives a signal from said data processing block and comparing said value stored in said programmable counter with a count threshold and signaling said interrupt generator when said value stored in said programmable counter is equal to said count threshold;

said interrupt generator, having an input coupled to said programmable counter and an output coupled to a network device microprocessor, adapted to generate an interrupt upon receipt of signal from said programmable counter;

said network device microprocessor, having a first input coupled to said interrupt generator and a second input coupled to said shared memory, adapted to receiving said interrupt signal from said interrupt generator and reading said data from said shared memory; and

said shared memory, coupled to said network device microprocessor and said data processing block, adapted to storing said data.

15. A network device according to Claim 14, wherein said data processing block is adapted to signaling said programmable counter upon detecting an end-of-PDU marker.

16. A network device according to Claim 14, wherein:

said interrupt generator having a second input coupled to a timer; and

said timer having an input coupled to said interrupt generator and an output coupled to said interrupt generator, adapted to begin measuring elapsed time upon arrival of a first data packet and signaling said interrupt timer when said elapsed time is equal to a time threshold.

17. A network device according to Claim 16, wherein said timer is adapted to begin measuring elapsed time upon arrival of a first end-of-PDU marker.

18. A network device according to Claim 16, wherein said programmable counter and said timer are reset after said programmable counter signals said interrupt generator.

19. A network device according to Claim 16, wherein said programmable counter and said timer are reset after said timer signals said interrupt generator.

20. A network device according to Claim 14, wherein said programmable counter is reset after said programmable counter signals said interrupt generator.

21. A network device according to Claim 14, wherein each network connection has a different programmable counter associated with each logical network connection.

22. A network device according to Claim 16, wherein each network connection has a different programmable counter and a different timer associated with each logical network connection.